Massachusetts Division of Health Care Finance and Policy
Application for All-Payer Claims Database (APCD) Data

Applications for APCD data must meet the requirements set forth in regulation **114.5 CMR 22.00: Health Care Claims Data Release** and any Administrative Bulletins promulgated under this regulation. The regulation and bulletins are available online at
http://www.mass.gov/chia/gov/hcf/regulations.html.
Information provided on pages 1-4 of this application will be posted on the internet for public comment.

A. APPLICANT INFORMATION

Applicant Name:	David F. Polakoff, M.D., M.Sc.
Title:	Chief Medical Officer, MassHealth Chief Medical Officer, Commonwealth Medicine Director, Center for Health Policy and Research
Organization:	MassHealth/Executive Office Health and Human Service (EOHHS) /U Mass Medical School on behalf of MassHealth
Project Title:	Child Health Care Quality Measurement - Core Measure Set Testing
Date of Application:	July 30, 2012
Brief Description of Project (240 character limit)	This Project, under a CMS CHIPRA Quality Demonstration Grant, will test the feasibility of data collection, calculation and reporting of a set of 24 core pediatric quality measures established by CMS and AHRQ in order to promote improvement for child health care quality nationally.

B. DATA REQUESTED

Note: 2008-2011 data are being requested as all the data become available.
Public and Restricted Use data are being requested.

1. PUBLIC USE

File	SINGLE USE '08	'09	'10	'11	LIMITED USE '08	'09	'10	'11	MULTIPLE USE '08	'09	'10	'11
Medical Claims					×	×	×	×	☐	☐	☐	☐
Pharmacy Claims					×	×	×	×	☐	☐	☐	☐
Dental Claims	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Membership Eligibility					×	×	×	×	☐	☐	☐	☐
Provider					×	×	×	×	☐	☐	☐	☐
Product	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

2. RESTRICTED USE

File	SINGLE USE '08	'09	'10	'11	LIMITED USE '08	'09	'10	'11	MULTIPLE USE '08	'09	'10	'11
Medical Claims					×	×	×	×	☐	☐	☐	☐
Pharmacy Claims					×	×	×	×	☐	☐	☐	☐

2. RESTRICTED USE			
File	SINGLE USE '08 – '09 – '10 – '11	LIMITED USE '08 – '09 – '10 – '11	MULTIPLE USE '08 – '09 – '10 – 11
Dental Claims	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
Membership Eligibility		× × × ×	☐ ☐ ☐ ☐
Provider		× × × ×	☐ ☐ ☐ ☐
Product	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

3. If you are requesting a Restricted Use dataset, please check each restricted data element you are requesting on the attached Data Element List and explain why you need access to EACH Restricted Use data element for your project. Limit your request to the minimum data necessary to complete the project.

> **Note:**
> The restricted data elements listed are needed predominantly for determining measure denominators and calculating the measures. Multiple provider fields are also listed to ensure accuracy in the identification of providers and aggregation of results to their practices. Masked data elements, assuming each provider has one unique masked ID, can be used to aggregate results to a unique provider.
>
> In addition to the restricted data elements being requested, UNMASKED provider data elements (from the public release file) are also being requested and are CRITICAL to enable aggregation and attribution of provider results to the practice-level. We will be reporting on results for all practices with at least 3 providers and 30 or more patients. We respectfully urge consideration of this request for this important project component.
>
> - Obtaining unmasked NPI#s (the two elements noted in the table below) would enable the project to identify the provider and link most providers to their practice (using MHQP's Massachusetts Provider Database) to aggregate practice results. The NPI data elements are also available unmasked in the Medicare data set.

The following Public Use Data Elements are being requested UNMASKED.	
Provider File (Public Use)	
Element/ID	**Rationale**
National Provider ID (PV039) National Provider2 ID (PV040)	These public use data elements **(UNMASKED)** are needed to identify providers and enable mapping and attribution of providers and their calculated aggregated measure results up to a practice level (with >30 patients) using MHQP's Massachusetts Provider Database. The National Provider ID data elements from the APCD data will enable matching up as many providers to practices as possible using the MPD and its provider data elements. These data elements requested provide most of the mapping to MHQP's Massachusetts Provider Database. Additional elements requested from in the restricted provider files will maximize mapping and accuracy of

	mapping.	

The following Data Elements for Restricted Release are being requested from their respective files:

Data Elements For Restricted Release	
Member Eligibility File	
Element	**Rationale**
National Plan ID (ME002)	Plan ID as 1 of 2 data elements is needed for uniquely identifying providers and patients; i.e., for: Providers: Plan Provider ID (PV002) + Plan ID. Patients: CarrierSpecificUniqueMemberID (ME107) + Plan ID.
Member Birth Month (ME014)	Data element is needed to determine measure denominators using calculated age as a key factor to determine the patient eligibility for inclusion in the denominator. - *Member birth year (public use element) with member birth month will be used to derive age in year and months.*
Member ZIP code (first 3 digits) (ME017)	Data element is needed for regional analysis of measure results.
Product Enrollment Start Date (ME041)	Data element is needed to determine measure denominators using enrollment as a key factor to determine the patient eligibility for inclusion in the denominator.
Product Enrollment End Date (ME042)	Data element is needed to determine measure denominators using enrollment as a key factor to determine the patient eligibility for inclusion in the denominator.
Member PCP ID (ME046)	Data element is needed to attribute and aggregate measure results to same PCP (Same as ME001).
CarrierSpecificUniqueMemberID (ME107)	Data element is needed to attribute aggregated patient-level de-identified results to the appropriate provider.
Payer / Member PCP ID (ME001 / ME046)	Data element is needed to attribute and aggregate measure results to same PCP for many of the measures attributed to PCPs.

Medical Claims File	
Element	**Rationale**
Service Provider Number (MC024)	Data element is needed to aggregate physician level measure results and to determine physician providing service for measure calculations.
Date of Service – From (MC059)	Data element needed to calculate attribution to PCPs, denominator, and numerator for multiple measures relating to: timeliness and frequency of prenatal care, well-child visits, appropriate testing for children with pharyngitis, follow-up care visits after hospitalization for mental illness, and follow-up for patients prescribed ADHD medication.
Date of Service – To (MC060)	Data element needed to calculate attribution to PCPs, denominator, and numerator for multiple measures relating to: timeliness and frequency of prenatal care, well-child visits, appropriate testing for children with pharyngitis, follow-up care visits after hospitalization for mental illness, and follow-up for patients prescribed ADHD medication.
Discharge Date (MC069)	Data element needed to calculate measure (follow-up after hospitalization for mental illness) to identify discharges as part of the denominator.
Discharge Month (MC069)	Data element is needed for measure (follow-up after hospitalization for mental illness) to identify age at discharge as a qualifier for the denominator.
Discharge Year (MC069)	Data element is needed for measure (follow-up after hospitalization for mental illness) to identify age at discharge as a qualifier for the denominator.
CarrierSpecificUniqueMemberID (MC137)	Data element is needed to link the de-identified patient to the member eligibility and pharmacy data files for measure calculations.
Pharmacy Claims File	
Element	**Rationale**
Plan ID (PC002)	Plan ID as 1 of 2 data elements is needed for uniquely identifying providers and de-identified patient; i.e., for: Providers: Plan Provider ID (PV002) + Plan ID Patients: CarrierSpecificUniqueMemberID (ME107) + Plan ID

Date Prescription Filled (PC032)	Data element is needed for measures: #9 (Chlamydia Screening) to determine women on contraceptives. #15 (Appropriate testing for pharyngitis) to determine members with a negative medication history. #21 (Follow-up care for children prescribed ADHD medication) to determine numerator of whether a visit occurred within 30 days of when medication was dispensed. #22 (Annual HbA1c testing for diabetic members) to determine members on anti-diabetes medications.
CarrierSpecificUniqueMemberID (PC107)	Data element is needed to link the de-identified patient to the member eligibility and medical claims data files for measure calculations.
Provider File	
Element	**Rationale**
Plan Provider ID (PV002) Payer (PV001)	These data element are needed for linkage to the public use provider file with the same masked data element(s) (PV001/PV002).
Provider DOB Year (PV015) Street Address1 Name (PV016) Street Address2 Name (PV017)	These provider data elements are needed to identify providers and enable mapping and attribution of providers and their calculated aggregated measure results up to a practice level (with at least 3 physicians and >30 patients) using MHQP's Massachusetts Provider Database. Using a select minimum of critical provider data elements from the APCD data will ensure the highest accuracy in matching up providers to practices using the MPD and its provider data elements.

1. Please describe the purpose of your project and how you will use the APCD Data.

Background

In 2010, Massachusetts was one of 10 grantees awarded a five year CMS Massachusetts Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration grant. Massachusetts' CHIPRA Project is led by MassHealth with four partners: Boston Children's Hospital, Massachusetts Health Quality Partners (MHQP), National Initiative for Children's Healthcare Quality (NICHQ), and University of Massachusetts Medical School (UMMS). The CHIPRA project supports the development and maintenance of an integrated approach to measurement and improvement across all settings of child health care delivery (physical, behavioral and oral health) that will lead to transformational gains in children's health and outcomes.

Purpose:

The request for APCD commercial claims data is to enable the CHIPRA Quality Demonstration Project to meet its stated purpose of testing the feasibility of data collection, calculation and reporting of a set of 24 core pediatric quality measures established by the Centers for Medicare and Medicaid Services (CMS) and the Agency for Healthcare Research and Quality (AHRQ) in order to promote improvement for child health care quality nationally.

The pediatric core measure set includes patient experience of care, ambulatory and hospital measures, and addresses a range of areas and conditions including perinatal care, child well-visits and preventive care, behavioral and mental health, asthma, and dental care.

Under MA's CHIPRA Quality Demonstration Grant, the Project intends to test the calculation and reporting of the national core set of pediatric quality measures at a practice-level, and to provide practices with information on their measure results for both their commercially-insured and MassHealth patients, where possible

Two cycles of measurement collection and testing are required as part of the CHIPRA grant project. The request for APCD data is to support the second measurement cycle to commence in early 2013.

As some of the core set of measures are designed to be collected from data sources other than administrative data sets (e.g., medical record-derived data, patient survey data), and some are designed to measure specialty services (e.g., dental care), the CHIPRA Project is seeking to test the calculation and reporting of only a subset of 13 of the full set of 24 core measures for commercially-insured patients using the APCD claims data. The subset of the core measures to be tested using the APCD data are listed below.

CMS Measure #	List of Measures from the Initial Set of Children's Healthcare Quality Measures (CMS) to be calculated using APCD data

1	Timeliness of prenatal care in first trimester; stratified by age
7	Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents: Body Mass Index Assessment for Children/Adolescents
9	Chlamydia screening
10	Well-child visits in the 1st 15 months of life
11	Well-child visits in the 3rd, 4th, 5th and 6th years of life
12	Adolescent well-care Visits
14	Child and Adolescent Access to Primary Care Practitioners
15	Appropriate Testing for Children with Pharyngitis
18	Ambulatory Care – Emergency Department visits
20	Annual Percentage of Asthma Patients 2 through 20 years old with one or more Asthma-related Emergency Room Visits
21	Follow-up care for Children Prescribed Attention Deficit Hyperactivity Disorder Medication
22	Annual pediatric Hemoglobin (HgbA1c) Testing
23	Follow-up after Hospitalization for Mental Illness

The APCD data will be used as follows:

- The measure specifications will be applied to the APCD data set, to identify denominator eligible individuals (e.g. all members 4-6 years of age), and to identify, for the group of denominator-eligible individuals, those who have a numerator eligible event during the reporting period (e.g. all 4-6 yr olds who had a well child visit.)

- Measure results will be patient de-identified and represent CHIPRA core measure results at the practice level with practice representing at least 30 or more patients that meet the denominator requirements within a practice.

- Performance measures results described above will be reported where possible at the provider practice level, and also at more macro levels (statewide) for the subset of measures noted above.
- Results for each calculated measure will be reported to practices, families, state agencies, and other stakeholders.
    - o Results that can be calculated at the practice level will be reported to the practices first, and the practices will have an opportunity to provide feedback on their results.
    - o As noted elsewhere in this application, practice level results will only be reported when the practice has an "N" of 30+ patients meeting the denominator for the measure, and at least 3 clinicians at the practice.
    - o Practice level reporting will be publicly reported only for measures where at least 50% of the practices for whom results can be calculated meet the criteria noted in the above bullet for number of patients and number of providers
- Feedback on the measures being reported, and on the format and content of the reporting, will be obtained from those groups.
- Analyses of the measure results will be undertaken, to facilitate a better understanding of how

> best to use the core measures set in supporting improvements in pediatric health care quality.

2. Please explain why completing your project is in the public interest.

> As noted above, CMS and AHRQ have established a set of Pediatric Healthcare Quality Measures (core measures set) in order to support improvements in child health care quality nationally.
>
> The use of the APCD data to allow for testing the core measures constitutes a use of data that is in the public interest in that it will allow the Commonwealth to test and identify areas for improvement in this nationally-adopted set of pediatric health care quality indicators, through gathering information from providers, families and other stakeholders on how the calculated measures and associated reports are used, or might be used, for quality improvement, health care decision-making, or other purposes designed to improve health care quality.
>
> More specifically:
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> - In the process of undertaking this large-scale data collection, performance measure calculation, and reporting process, the Project will gather critical information on the relevance, feasibility, and reliability of the measures, and determine which measures can be reported at the provider practice level.
>
> - Both MassHealth and commercially enrolled patients will be reported on under this Project, allowing the opportunity to compare measure results and assessment of feasibility and usefulness of the set of core measures of child health care quality for both publicly and privately insured children.
>
> - The Project is a component of the overall CMS funded CHIPRA Demonstration grant. Lessons learned about the core measures will be shared with CMS and AHRQ for consideration in future iterations of the core measures set for children.

3. Attach a brief (1-2 pages) description of your research methodology

See Attachment A

D. APPLICANT QUALIFICATIONS

1. Describe your qualifications to perform the research described or accomplish the intended use.

> The project includes a multi-disciplinary team from several organizations in addition to U Mass Medical School represented by the CHIPRA grant project.
>
> The team roles include:
>
> (A) UHealth Solutions (UHS), a wholly-owned subsidiary of the University of Massachusetts Medical

School.

The UHS data warehouse and analytics team is responsible for gathering and storing the data, validating and cleaning the files received, applying the project's patient attribution methodology and providing measure results data to Massachusetts Health Quality Partners (MHQP).

(B) Massachusetts Health Quality Partners (MHQP), a broad-based coalition of physicians, hospitals, health plans, purchasers, patient and public representatives, academics, and government agencies working together to promote improvement in the quality of health care services in Massachusetts. MHQP, established in 1995, provides trusted, reliable information to help physicians improve the quality of care they provide their patients and help people take an active role in making informed decisions about their health care. MHQP measures and reports on the quality of healthcare services provided to residents of Massachusetts through its statewide reporting of clinical quality performance to physicians, and patient experience with care. (www.mhqp.org)

MHQP, along with personnel from EOHHS / MassHealth, and MHQP consultants, is responsible for working with the UHS data warehouse team to ensure data quality and integrity of the measurement results, undertaking the analysis of the measure data and development of provider and family reports.

MHQP is the lead organization for the analytics of this project. MHQP has previously worked with similar data sets from the Division of Health Care Finance and Policy, and with data directly received from health plans and from Medicare. MHQP is qualified to do this work based on its 16 years of experience in health care quality measurement. For example, now in its eighth cycle (i.e. 2005-2012), MHQP annually aggregates ambulatory care clinical quality data from the five largest health plans in MA and reports comparative performance results at the medical group level, both privately to provider groups and health plans and publicly on its website. In 2007, MHQP was awarded a grant from CMS to calculate clinical quality measure results for medical groups in MA that served Medicare beneficiaries and to evaluate whether those results could be combined with commercial results for the same groups to create a more robust set of results. The project involved three annual cycles of aggregation and comparative performance results. MHQP has also aggregated clinical quality data from MassHealth and its managed care plans to create comparative reports at the practice level.

The organizations with its principal investigator, project leads, and contributing staff to the project bring well over 20+ years of individual and combined research and analytical expertise specifically related to quality measurement and reporting using medical claims data. Organizations and staff represented on this project have a solid background qualified to perform this type of research, and are actively working on the project's first cycle of this grant project, applying the same research methodology, but reflecting different time periods and a much more limited commercial claims data set.

2. Submit the résumé or curriculum vitae of the applicant/principal investigator, key contributors, and of all individuals who will have access to the data.

   Please see attached resumes and CVs for the project team noted below who will have **direct access to the data.**

Name	Title(s)	Role	Institution	E-Mail Address
Frederick (Rick)Perro	Senior Director Enterprise IT	Lead: Data Warehouse Team UHS	UHealthSou tions	FPerro@uhealthsolutions.org
Christine Cawley	Senior Healthcare Data Analyst	Development of business specs and HEDIS expert	UHealth Solutions	ccawley@uhealthsolutions.org
Sara Fatykhova	ETL Programmer	ETL (Data Loading/Export) UHS	UHealthSou tions	sfatykhova@uhealthsolutions.or g
Alex Prusakov	Database Programmer	Program SQL for measure extract UHS	UHealthSou tions	aprusakov@uhealthsolutions.org
Dan Lavigueur	ETL Programmer	ETL (Data Loading/Export) UHS	UHealthSou tions	dlavigueur@uhealthsolutions.org
Pranita Sarasam	Data Quality Manager	Data QA	UHealthSou tions	psarasam@uhealthsolutions.org
Shoreh Shishesaz	Data Quality Manager	Data QA	UHealth Solutions	sshishesaz@uhealthsolutions.or g
Janice Singer	Director of Operations	Lead: CHIPRA Grant Core Measurement Team	MHQP	jsinger@mhqp.org
Marguerite Dresser	Director of Information Systems and Data Analysis	CHIPRA Grant Core Measurement Team	MHQP	mdresser@mhqp.org
Jason Leistikow	Information Systems Developer	CHIPRA Grant Core Measurement Team	MHQP	jleistikow@mhqp.org
Brian Patrolia	Principal Information Systems Analyst	CHIPRA Grant Core Measurement Team	MHQP	bpatrolia@mhqp.org
Robert Rosofsky	Consultant	CHIPRA Grant Core Measurement Team	Consultant to MHQP	RRosofsky@HealthInfoSys.net

Note: Additional staff supporting the project efforts WILL NOT have direct access to the patient-level data set, and will only be assessing and analyzing calculated and aggregated measure results (e.g.,

practice, payer-type, or state-wide results). Measure results will be patient de-identified and represent CHIPRA core measure results at the practice level with practice volume aggregated only when 30 or more patients that meet the denominator requirements exist within a practice.

Staff will be subject to project lead oversight and follow all data privacy and security policies required by this application and the respective organizations with which they are employed or subcontracted.

E.   DATA LINKAGE AND FURTHER DATA ABSTRACTION

1. Does your project require linking the APCD data to another dataset?
   YES   ×   NO

APCD data will not be linked to any other data at **a patient level.**

However, once the measure calculations are completed using the APCD data, the results of the calculations at the provider level will be linked to the provider information contained in the **Massachusetts Health Quality Partners' Massachusetts Provider Database (MPD).**

MHQP's MPD represents the structure of ambulatory care in Massachusetts. It is a unique data source that allows for mapping of primary care providers and specialists to the location(s) and group(s) in which they actually practice. Mapping provider/physician information from the APCD will enable measure results of providers/physicians to be attributed to a particular practice location. MHQP has the most reliable and up to date ambulatory care mapping available and is validated at least annually by provider organizations (i.e. medical groups, practices). The MPD is a resource that enables MHQP to offer value to diverse customers (i.e., government groups, health plans, medical groups and clinicians, researchers) for multiple purposes (i.e., grouping physicians for: clinical quality reporting purposes, patient experience reporting purposes, claims analysis, etc.).

In order to calculate rates for measures that represent the commercially insured population, MHQP will start with deidentified patient information received from UHS and then aggregate this information to the provider and practice level using the MPD.

UHS will apply the CHIPRA core measure specifications to the APCD patient-level data set to identify denominator eligibles (e.g. all members 4-6 years of age), and to identify, for the group of denominator-eligibles, those who had a numerator eligible event during the reporting period (e.g. all 4-6 yr olds who had a well child visit).

Then UHS will create a deidentified record for each patient who meets the denominator eligibility. Each record will include: a randomly-assigned person-specific number, information on whether the patient met the numerator qualifying event of interest (yes/no) and information on the provider associated with the deidentified patient. No patient identifying information will be included in this file, which will be securely transferred to MHQP.

MHQP will compute the number of patients (without any identifying information included) per provider who were eligible for each measure denominator, and the number of those patients who had a numerator-qualifying event. Then, the total number of denominator eligible patients per provider and their numerator-qualifying event status will be rolled up to the practice level. No results will be reported for any practice with less than 30 people represented in this total.

The steps above will ensure that the privacy of all patients will be protected during and following the process of linking the CHIPRA deidentified patient-level measure results to MHQP MPD provider information.

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2. If yes, will the APCD data be linked to other patient level data, other databases, or vital statistics data?
   YES   ×   NO

3. If yes, please identify all linkages proposed and explain the reasons(s) that the linkage is necessary to accomplish the purpose of the project. Specify the specific steps you will take to prevent the identification of individual patients.

> Linking patient level data to practice data will not substantially increase the risk of identifying individual patient. Nevertheless, we will take care to report only aggregate data, to suppress cell sizes smaller than 30 patients and avoid reporting variables that could be combined to identify an individual.

F.   RE-RELEASE OF DATA

Applicants must obtain prior approval from the Division to publish reports that use APCD files. Applicants must provide the Division with a copy of any report at least 30 days prior to release to outside parties, including peer review and prepublication analysis by anyone other than the individuals named in this Application. The Division will review the report to ensure that the publication will not permit identification of an individual patient or permit identification of a specific payment by individual payer. The Division may prohibit release of reports that may permit identification of individual patients or specific payment by individual payer.

1. Describe your plans to publish or otherwise disclose any APCD data elements, or any data derived or extracted from such data, in any paper, report, website, statistical tabulation, or similar document.

> No APCD data elements will be reported, only measure results derived from the APCD data set will be reported.
>
> Goals of the project for disseminating results of the study include: 1) Creating comparative reports that can be used by practices, health plans and policymakers to establish performance goals and

improvement activities, and 2) Creating comparative reports with performance results and consumer information that families can use to become more active partners in ensuring their children's health.

Aggregate results for the measures at a practice level or at a state level, whichever is possible, depending on the measure and available data, will be reported to providers, consumers, families, and other stakeholders. In no case will these aggregate results include any results for a cell size of less than 30.

The Project will hold sessions for providers to explain how results were generated and how to use the information in the reports to initiate quality improvement activities in their practices. The Project will also gather provider's input on the usefulness of reporting their practice's performance and how they are using their results.

A final report with results of the analysis of the overall results for the measures will be submitted to CMS and to CMS' contracted vendor for the CHIPRA grant national evaluation, Mathematica Policy Research, as required by the CHIPRA Demonstration grant requirement. The report will not contain any patient-identifiable data, but will only represent the findings from the analysis, and in no event will rates be reported for any cell size less than 30 patients.

2. Will the results of your analysis be publicly available to any interested party? Will you charge a fee for the reports or analysis? Please describe how an interested party will obtain your analysis and, if applicable, the amount of the fee.

The results of our analysis of the data, as noted above, will be made available to CMS and to CMS' contracted vendor for the national evaluation. There are currently no plans to make the analysis results available In a public format. As the analysis work that is part of this project is paid for from public funds (through CMS), as with any product of a publicly-funded project, any interested party may make a request for such information. The only fee that might be associated with responding to such a request would be a records copying fee.

3. Will you use the data for consulting purposes?
   YES ☐   NO   X

4. Will you be selling standard report products using the data?
   YES ☐   NO   X

5. Will you be selling a software product using the data?
   YES ☐   NO   X

6. If you have answered "yes" to questions 3, 4 or 5, please (i) describe the types of products, services or studies; (ii) estimate the number and types of clients for which the data will be used and (iii) describe any rerelease of data by your clients.

n/a

G. USE OF AGENTS OR CONTRACTORS

Third-Party Vendors. Provide the following information for all agents and contractors who will work with the APCD data.

1. UHealthSolutions, Inc. (UHS), is a not-for-profit, wholly owned subsidiary of the University of Massachusetts Medical School. UHS is providing the data warehouse resources for the CHIPRA Project.

Company Name:	UHealthSolutions, Inc.
Contact Person:	Frederick Perro
Title:	Senior Director of Enterprise Information Technology
Address:	100 Century Drive, Worcester, MA 01601
Telephone Number:	(508) 421-5631
Fax Number:	(508) 793-1199
E-mail Address:	fperro@uhealthsolutions.org
Organization Website:	http://www.uhealthsolutions.org/

1. Describe the tasks and products assigned to this agent or contractor for this project.

MassHealth is requesting the UHS group to load the data obtained from the APCD into an analytical data warehouse, build the computer program code, based on the measure specifications (as provided by CMS, and as modified by the CHIPRA project staff, where necessary, to conform to available data) and deliver data extracts to MHQP.

UHS will be responsible for validating the data files received from the University, translating the source data into format required for loading into UHS' data warehouse, and loading the data into the data warehouse for analysis.

UHS will develop and implement business measure specifications, apply these to the data set, and deliver data extracts to MHQP, for rate calculation and analysis.

2. Describe the qualifications of this agent or contractor to perform such tasks or deliver such products.

UHS is a non-profit health care consulting and IT services firm affiliated with the University of Massachusetts Medical School (UMMS). UHS is committed to helping public agencies, hospitals, managed care organizations and providers improve health care quality and efficiency. The UHS Enterprise Information Systems (EIT) group designs and delivers advanced healthcare IT solutions to automate data processing, analyze results, predict outcomes and manage large data warehouse solutions.

- UHS, also in partnership with UMMS, processes, stores and analyzes large volumes of confidential PHI for Prescription Advantage (MA), Medicare Part D (MA) and EOEA SIMS. It also is engaged by the State of Texas to perform similar functions for its Medicare Part D program.

- UHS' data warehouse and business intelligence team has significant experience with data loading, quality control, analysis and reporting – including development of Web-based business intelligence systems. These systems automatically process and load healthcare and pharmacy claims, eligibility and reference data – to produce online reports, and performance / quality measures.

Lead:
Rick Perro – Senior Director of Enterprise Information Technology
Rick Perro has over 30 years' experience in software development in both management and software engineering roles. He has worked in the healthcare, financial services, telecommunications and energy management industries and has extensive experience in the development of complex data driven systems. He has been at UHealthSolutions since 2006. Rick is responsible for management of the UHS team. He has a Masters in Genetics and a Masters in Business Administration. Rick may require access to the data in order to effectively manage the work of the Project Team.

Project Team:

Christine Cawley, Senior Healthcare Data Analyst, is UHS' HEDIS expert and previously served as the Director of Analytical Clinical Development for McKesson Health Solutions. She managed analytic development for CareEnhance™ Clinical Resource Management Software™ (CRMS) and Disease Monitor™, including NCQA Software Vendor certification for HEDIS. She also served as the MHS representative on the Symmetry Health Data Systems Medical Advisory Board and NCQA's Pharmacy Advisory Panel. She subsequently managed the training and consulting group for the Ingenix (now Optuminsight) Impact Pro and Impact Intelligence products, which measured the quality of care delivered to members and helped health plans to provide actionable data to providers and consumers. Her role will require access to all data flowing in and out of the system.

Dan Lavigueur is the ETL Manager (ETL = data Extraction, Transformation and Loading) for UHealth Solutions. He is a graduate of Bentley College with a B.S. in Computer Information Systems (C.I.S.) with over thirty years of data processing experience, including approximately ten years with ETL and six years working with health data. Dan will architect, develop and administer many of the ETL processes. His role will require access to all data flowing in and out of the system.

Alex Prusakov is a Senior Business Intelligence Developer at UHS with over 20 years of programming experience with business application development for the financial and medical industries. Alex will design and develop combinations of ETL, back end data modifications and

HEDIS testing reports. His role will require access to all data flowing in and out of the system.

Sara Fatykhova is a Senior ETL Developer at UHS, with almost 15 years of industry experience working with data and ETL processes for projects supporting the pharmaceutical industry, telecommunication services, solar panel industry and healthcare. Sara creates ETL processes, designs and develops complex databases and models for reports. She will participate in design and development of ETL processes and will need access to all of the data flowing in and out of the system.

Pranita Sarasam is the Data Quality Manager at UHS. She holds a BS in Electronics and Communication Engineering from JNTU Hyderabad, India and a master's degree in Computer Engineering from Western Michigan University. Pranita has a proven track record in the successful delivery of the new *Prescription Advantage* system and is currently working on comprehensive testing of the newly *Drug Utilization Review* system for the Clinical Pharmacy Services team (CPS) at Commonwealth Medicine. Pranita specializes in Quality Assurance best practices and methodologies and has over 10 years experience, including 7 years working with health data. Pranita will perform advanced data analysis and oversee data quality measurements. Her role will require access to all data flowing in and out of the system.

Shohreh Shishesaz is employed at UHS as Systems Analyst on the Quality Assurance Team. Shohreh specializes is rules system design and QA testing. She graduated from Alzahra University in Tehran with a B.S. in Mathematics. Shohreh has Computer Information Certification from W.P.I. and is working towards an Information Systems Master Degree at W.P.I in Worcester, MA. Shohreh has over 15 years of data processing experience including 10 years working with healthcare data. Shohreh will assist in designing and executing QA test plans for all data warehouse and HEDIS testing activities. Her role will require access to all data flowing in and out of the system.

3. Describe your oversight and monitoring of the activity and actions of this agent or subcontractor.

Governance:
- Louise Bannister, UMMS, CHIPRA Grant Project Director will be responsible for managing the terms of the Project Task Order (or contract) with UHS.
- Gary Gianetti, UMMS, Commonwealth Medicine Sr. IT Project Director will be responsible for the project management requirements of this project.
- The Project Team, which includes both Louise and Gary, along with UHS management staff and staff from MHQP will meet weekly to track and monitor progress and work on the project.

2. Robert Rosofsky of Health Information Systems Consulting LLC is an independent consultant to MHQP, with over 20 years of experience working with health data.

Company Name:	Health Information Systems Consulting LLC
Contact Person:	Robert Rosofsky
Title:	Principal
Address:	29 Waldo Road, Milton, MA 02186
Telephone Number:	617-273-1299
Fax Number:	N/A
E-mail Address:	RRosofsky@HealthInfoSys.net
Organization Website:	www.HealthInfoSys.net

4. Describe the tasks and products assigned to this agent or contractor for this project.

Robert Rosofsky will be writing measurement specifications and overseeing some of the measurement calculation and data processing work of UHS. Specifically, he will: provide functional specifications for measures to UHS, map functional requirements to technical objects (e.g., tables and variables), review UHS' data model for storage and use of the APCD data, review UHS' technical specifications for measure calculations, and review their procedures for data quality assurance.

5. Describe the qualifications of this agent or contractor to perform such tasks or deliver such products.

Robert Rosofsky of Health Information Systems Consulting LLC is an independent consultant with over 20 years of experience working with health data. Robert has been working with MHQP since 2006, on various quality measurement projects. These include the development of the Quality Data Center of the Massachusetts eHealth Collaborative, where he developed measure specifications and performed parallel programming in order to validate computed results. He has validated MHQP-computed ambulatory measure statistics for commercial health plans and he has collaborated with MHQP on their analytic quality measurement consulting work to the QCC in 2010.

6. Describe your oversight and monitoring of the activity and actions of this agent or subcontractor.

Governance:

- Louise Bannister, CHIPRA grant project director, in collaboration with Janice Singer, Director of Operations, and Marguerite Dresser, Director of Information Systems and Data Analysis, MHQP, will manage the work of this contractor, on a day to day basis, related to this project.

- This contractor participates in weekly meetings between MHQP, UHS and UMMS, where this contractors' work on the project is monitored and tracked.